

Claims

What is claimed is:

1. An attenuator for attenuating optical energy at a first wavelength, said attenuator comprising:

a portion of a fiber optic through which the optical energy at the first wavelength and through which light energy at a second wavelength are transmitted, the portion of the fiber optic having a side surface through which at least some of the optical energy at the first wavelength can be controllably extracted;

a controllable material formed over the side surface of the fiber optic, wherein the controllable material controllably extracts the optical energy at the first wavelength according to a changeable stimulus applied thereto; and

a light source in operative contact with the controllable material for applying the changeable stimulus thereto;

wherein the changeable stimulus comprises the light energy at the second wavelength;

wherein the temperature of at least some of the controllable material residing adjacent the side surface of the fiber is raised as the light energy at the second wavelength is absorbed by the controllable material.